Source & Provenance
Sustainable Beauty
# Table of Contents

- **A Sustainable Movement** ................................................................................................................. 3
- **Cradle to Cradle** .......................................................................................................................... 4-7
  - **Coconuts** ................................................................................................................................. 4-5
  - **Superfruits** .............................................................................................................................. 6-7
- **Biotechnology** ............................................................................................................................ 8-11
  - **Cell Culture** ............................................................................................................................ 8-9
  - **Microorganisms** ........................................................................................................................ 10-11
- **Reanimated Waste - Food & Agriculture** ....................................................................................... 12-13
- **Regenerative Botanicals** ............................................................................................................. 14-15
Sustainability is not only a trend, but a **movement** permeating all industrial sectors including food, agriculture, energy production, beauty, and fashion. Increasing awareness of environmental impacts, ingredient origins, or social responsibility prompt consumers to reevaluate their typical consumption. Globally, consumers push for renewable products while looking to brands for sustainable alternatives. Natural, organic, green, and clean are buzzwords that have become hot topics across the beauty industry. As consumers progress, ‘organic’ and ‘natural’ are no longer satisfactory. The rise of ‘traceability,’ ‘farm level sourcing,’ ‘provenance’ and ‘sub-zero waste’ provide brands an opportunity to differentiate in the marketplace.

**Sustainability** concepts or goals are continuously redefined as consumers, brands, suppliers, manufacturers, and farmers determine mechanisms to reduce waste across industries. This fluid definition of sustainability offers brands the unique opportunity to highlight the story they want to tell. From packaging to reducing energy, brands are customizing sustainable practices. As this movement continues, **hero ingredients** will become brand inspiration, offering consumers a tangible connection to addressing sustainability concerns. From upcycling food or agricultural waste, to cell culture and biotechnology reducing our carbon footprint is becoming a beauty standard.

Active Concepts’ sustainability standard, as a company with a global presence, focuses our ability on manufacturing and **locally** supplying raw materials. The health of our business depends on the health of our supply chain, specifically including, the ecosystem and communities where our suppliers and manufacturers operate. Thus, Active Concepts has adopted a holistic view of the personal care supply chain. Whenever possible, Active Concepts will obtain raw materials from a Fair Trade Certified source, which assists small-scale farmers to participate in the global marketplace without being exploited, and gives consumers product choices that are in line with their values. Active Concepts’ sustainable strategy focuses on our ingredients and manufacturing, ensuring our materials and processes are environmentally sound and sustainably sourced.

Active Concepts is also committed to tracking and reducing our carbon emissions. We are dedicated to energy management and climate protection within our own manufacturing operations. Active Concepts was the **first** cosmetic raw manufacturer to invest in renewable energy resources, specifically **solar panels**, to power our facility, reducing our energy use and carbon footprint. The solar panels capture sunlight across a 360-degree surface and convert light into energy. Our “Capacity Commitment” states that we will only use 75 kilowatts of the allowable 81.36 kilowatt output from our sun-module. Thus, our energy consumption is lower than the permissible amount while also supplying the community with unused energy. This not only helps protect the environment of our community, but also promotes the economic situation within the community as well.
The Cradle to Cradle approach maximizes sustainable sourcing and use of raw material components. Creating production techniques that are not only efficient but also essentially waste free. Optimizing this approach, we are able to utilize materials that would otherwise be considered waste, such as leaves or seeds, to become raw materials for manufacturing other ingredients. This waste management approach maximizes the yield of ingredient variety from each plant source.

Coconuts offer farmers a sustainable source of income and opportunity, as the coconut trees live and produce for decades. After harvest, coconut trees continue to replenish and reproduce, providing a sustainable supply of product. Coconuts are versatile in regards to industry uses including, the coconut water and meat are common in the food industry for drinks, yogurt, chips, and oil. Coconut wood provides building materials and even the flowers are a tradition in some alcohol production.

- Coconut water extracted
- Coconut meal extracted with water to give coconut milk
- Coconut meal pressed to give coconut oil
- Coconut oil fractionated to give medium chain triglycerides (MCTs)
- MCTs fermented with *Lactobacillus* to give a natural antifungal active
- Oil fractionated and re-blended to give a sterol rich balm
- Coconut husk milled to produce coconut scrub
## Cradle to Cradle - Coconuts

A tropical, topical trend to stay. From workouts to cosmetics, coconut ingredients supply hydration, electrolytes, vitamins, and essential nutrients to keep us looking and feeling fabulous. The wellness industry ushered the rise of coconut popularity with the health benefits of coconut water. As consumer awareness pushes for natural, vegan, and sustainable alternatives, coconut ingredients maintain the spotlight in cosmetic applications.

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
<th>INCI Name</th>
<th>Mechanism</th>
<th>Multifunctional Benefits</th>
</tr>
</thead>
</table>
| 20742 - AcquaSeal® Coconut| Cocos Nucifera (Coconut) Fruit Extract         | Fractionated coconut lipids seal in moisture and transform the skin into a luxuriously soft, hydrated surface | • Improves barrier function  
• Antioxidant protection  
• Enhances aesthetics of final formulations |
| 16677 - AC Coconut Shell Exfoliate | Cocos Nucifera (Coconut) Shell Powder | Utilizes coconut shell to provide a physical exfoliate ingredient capable of providing beneficial attributes in cosmetic formulations | • Physical Exfoliant  
• Rejuvenating  
• Great for Skin and Hair |
| 10568PF - ABS Coconut Water PF | Cocos Nucifera (Coconut) Water | A drink for thirsty skin, coconut water offers potent moisturizing properties and oxidative protection to skin | • Moisturizing  
• Antioxidant Protection  
• Conditioning |
| 11439PF - ABS Coconut Juice PF | Cocos Nucifera (Coconut) Fruit Juice | Offers the opportunity to capitalize on the nourishing benefits of coconut juice in hair and skin care formulations | • Nourishing  
• Revitalizing  
• Great for Skin and Hair |
| 10543 - ABS Coconut Extract OS | Helianthus Annuus (Sunflower) Seed Oil & Cocos Nucifera (Coconut) Fruit Extract | Harnessing the natural properties of the coconut fruit to offer rejuvenating benefits in hair and skin care applications | • Revitalizing  
• Conditioning  
• Nourishing |
| 16703 - ABS Monoi Oil Extract AQ | Water & Cocos Nucifera (Coconut) Oil & Gardenia Tahitensis Flower Extract | Capitalizes on the benefits associated with coconut oil and the tiaré flower to revitalize the complexion | • Nourishing  
• Conditioning  
• Rejuvenating |
| M14003 - AMTicide® Coconut | Lactobacillus & Cocos Nucifera (Coconut) Fruit Extract | A powerful probiotic-based antifungal ingredient based on the fermentation of Lactobacillus in the presence of coconut | • Moisturization  
• Antifungal  
• Promotes microbiome balance |
A mindful elimination of waste prompts the incorporation of a cradle to cradle approach in sustainable product design and innovation. Utilization of recycled products, typically considered waste to other industries, offers renewable sourcing and a positive ecological footprint. Inspired by nature, the cradle to cradle practice integrates sustainable manufacturing to address rising customer expectations. The approach combines waste management and upcycling material to promote techniques that are not only efficient, but essentially waste free.

Many botanicals and superfruits discover new life in the cosmetics industry. The food and beverage industries utilize select components while discarding materials such as seeds or pomace. Acai fruit for example is primarily seed; the outer skin is used to make a pulp, which is the basis of many acai products. The seeds are usually discarded, as they cannot be used for consumption. Acai seeds are a renewable caloric source of green biomass energy that offer various industries a substitute to other non-renewable fuels, oil products, and even cosmetic ingredients. Pomegranate waste materials often include residual fruit pulp and seeds that provide starting materials for raw cosmetic ingredients.
## Cradle to Cradle - Superfruits

Pomegranates and acai are two sustainable superfruits capturing the admiration of cosmetic consumers. Packed with vitamins, nutrients, and antioxidants superfruits are taking over the wellness and nutritional industries. Consumer recognizable, pomegranates and acai gain momentum as skin food for a vibrant, healthy complexion.

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
<th>INCI Name</th>
<th>Mechanism</th>
<th>Multifunctional Benefits</th>
</tr>
</thead>
</table>
| 10247 - ABS Pomegranate Sterols | Punica Granatum Sterols | Superfruit ingredient beneficial as a natural replacement for synthetic or animal-derived materials and capable of increasing moisture levels | • Moisturizing  
• Improves Barrier Function  
• Perceivable Sensorial Attributes |
| 10669 - ABS Pomegranate Extract AQ PF | Water & Punica Granatum Extract | Capitalizes on the known properties of pomegranate for revitalizing benefits in hair and skin care applications | • Conditioning  
• Nourishing  
• Rejuvenating |
| 20440PF - ACB Modified Pomegranate Enzyme PF | Lactobacillus/Punica Granatum Fruit Ferment Extract | Harnessing the properties of proteolytic enzymes to offer a functional active capable of exfoliation benefits; extracted with intact chaperone proteins for increased stability | • Cellular Renewal  
• Nourishing  
• Revitalizing |
| 20652 - AC Pomegranate Oil | Punica Granatum Seed Oil | Offers the opportunity to harness the known benefits of pomegranate oil while revitalizing the complexion | • Conditioning  
• Great for Hair and Skin |
| 10414 - ABS Acai Sterols EFA | Euterpe Oleracea Sterols & Linoleic Acid & Oleic Acid & Linolenic Acid | Derived from the lipid fraction of the acai fruit, this ingredient can serve as a natural replacement for petrolatum and lanolin | • Improves Barrier Function  
• Standardized for Essential Fatty Acids |
| 10486 - ABS Acai Extract Powder | Euterpe Oleracea Fruit Extract | Capitalizes on the known properties of acai for revitalizing benefits in hair and skin care formulations | • Conditioning  
• Great for Skin and Hair  
• Nourishing |
| 15023 - AC Acai Oil | Euterpe Oleracea Oil | Offers the opportunity to capitalize on the natural properties of acai oil while providing revitalizing benefits in personal care formulations | • Anti-frizz  
• Conditioning  
• Antioxidant |
| 16587 - Phyto-Biotics Acai® | Euterpe Oleracea Fruit Extract | Plant-derived stem cell technology capitalizing on specific activity of phenolic metabolites produced by acai to provide antioxidant, moisturization, and anti-inflammatory benefits | • Antioxidant Protection  
• Anti-Inflammatory  
• Standardized for Ferulic Acid |
Plant biotechnology transforms sustainability improvements across agriculture, horticulture, and personal care. Plant tissue culture is a technique utilized to grow and maintain various plant tissues or cells in a controlled environment. Rescued and propagated, plant species offer year round cultivation opportunities while requiring less water than traditional agriculture applications. Cell culture technology overcomes concerns regarding slow plant growth, seasonal harvest, and active concentration variation. These ‘lab-grown’ technologies encourage sustainable innovation, while harnessing secondary metabolites or components commonly unavailable.

As sustainability concerns increase, consumers opt for ingredients promoting biodiversity and environmental protection. Cell cultures offer the opportunity to grow numerous plants, creating a sustainable source of plant material without disrupting the environment. Some ecosystems and habitats are on the brink of collapse, with the destruction of plants a major threat and the possibility of extinction on the horizon. Alternative methods for product development, including cell cultures, offer socioeconomic stability and a sustainable supply of raw ingredient material. Lab grown or biotechnology-inspired ingredients also contribute to global food security, as they do not compete with the food chain.

- **Euterpe Oleracea (Acai) plant stem cells are grown in culture**
- **Biotic stress initiated - Inoculation of Plant Cells with *Leuconostoc* sp.**
- **Filtration to isolate desired components**
- **Metabolite of interest = Ferulic Acid**

Acai palms have evolved to survive extreme environment conditions. Rich in secondary metabolites as a survival response to the environment.
### Biotechnology - Cell Culture

Algae and mushroom cells, as well as plant stem cells are just a few examples of lab grown technology offering green tools for sustainable development. Stem cells are biological cells found in all multicellular organisms, which can divide, through mitosis, and differentiate into diverse, more specialized cell types. Plant stem cells are considered the origin of plant vitality while offering unique properties including the production of higher active concentrations.

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
<th>INCI Name</th>
<th>Mechanism</th>
<th>Multifunctional Benefits</th>
</tr>
</thead>
</table>
| 16586 - Phytofuse Renew® | Selaginella Lepidophylla Extract | Moisture Retentive Complex delivers a protective film to the skin and allows for powerful, long-term moisturization | - Wound Healing  
- Pollution Protection  
- Anti-Inflammatory |
| 20024 - ACB Wakame Bioferment Advanced | Undaria Pinnatifida Cell Culture Extract | Increases oxygen consumption while simultaneously reducing the formation of reactive oxygen species to increase overall mitochondrial efficiency | - Antioxidant Protection  
- Increases Collagen Synthesis  
- Enhances Cellular Longevity |
| 20852 - AcquaSeal® Algae | Chlamydomonas Reinhardtii Extract | Oil soluble active designed to target skin aging at a cellular level utilizing isolated lipid fractions from green algae; properties of a retinol alternative while minimizing skin redness and inflammation | - Cellular Renewal  
- Anti-Inflammatory  
- Defends Against Skin Aging |
| 16908 - BiEau® Actif Tri-Mushroom | Ganoderma Lucidum (Mushroom) Juice & Inonotus Obliquus (Mushroom) Juice & Cordyceps Sinensis Juice | Vital botanical essence designed to encourage an isotonic environment while reducing inflammation and promoting antioxidant protection for the skin | - Antioxidant Protection  
- Anti-Inflammatory  
- Standardized for Presence of Glutamine |
| 16905 - BiEau® Actif Brown Algae | Laminaria Japonica Juice | Cellular plant essence offering an isotonic environment for the skin while optimizing the presence of fucoidan to address wrinkles and oxidative stress | - Wrinkle Reduction  
- Antioxidant Protection  
- Standardized for the Presence of Fucoidan |
| 16906 - BiEau® Actif Green Algae | Spirulina Platensis Juice | A bioactive essence capable of hydrating, harmonizing, and nourishing the complexion while promoting an isotonic environment for the skin | - Moisturizing  
- Improve Barrier Function  
- Standardized for the Presence of Niacinamide |
| 16909 - BiEau® Actif Red Algae | Haematococcus Pluvialis Juice & Phaffia Rhodozyma Ferment Extract | Complex of red algae and fermented yeast offers a bioactive cellular water complex capable of providing anti-inflammatory benefits to the skin | - Rejuvenating  
- Anti-Inflammatory  
- Standardized for the Presence of Astaxanthin |
| 40600 - Phyto-Biotics Perilla® | Perilla Frutescens Extract | Plant-derived stem cell technology capitalizing on specific activity of phenolic metabolites produced by perilla to provide antioxidant, moisturization, and anti-inflammatory benefits | - Increases Cellular Metabolism  
- Anti-Inflammatory  
- Standardized for Rosmarinic Acid |
| 16587 - Phyto-Biotics Acai® | Euterpe Oleracea Fruit Extract | Plant-derived stem cell technology capitalizing on specific activity of phenolic metabolites produced by acai to provide antioxidant, moisturization, and anti-inflammatory benefits | - Antioxidant Protection  
- Anti-Inflammatory  
- Standardized for Ferulic Acid |
Throughout our portfolio of actives, Active Concepts focuses on different methods of biotechnology. Industrial applications of biotechnology are transforming manufacturing processes in a profound way across many different sectors, from agriculture to fuel production and in personal care. These ‘lab-grown’ technologies provide green tools for sustainable development, reducing or even eliminating waste and pollutants while safeguarding natural resources.

The use of biotechnology and biofermentation allows us to produce controlled cosmetic actives while helping to reduce energy, water and chemical inputs compared to many traditional extraction techniques. Although we have been following these practices for many years, a recent 2020 Mintel report stated that ‘Lab-Grown’ will be the new ‘Organic’ lead by an increase in consumer understanding of biotechnology and the positive impact this can have in the sourcing of natural and sustainable ingredients.

The cells are cultured under special conditions. Different manipulations such as instigating a stress or providing specific nutrients can be used to promote a specific cell responses. The cells are lysed and passed through filtration processes to isolate the desired novel compounds. Single-celled bacteria and yeast are sugar-powered microfactories that can be utilized to synthesize novel compounds, proteins and carbohydrates.
## Biotechnology - Microorganisms

Sustainability goals are diverse, allowing for innovative use of scientific technology across industry platforms. Microbial biotechnology promotes the manipulation of yeast and bacteria for environmental, agricultural, and cosmetic applications. Microorganisms naturally sustain life while playing vital roles in global issues such as pollution and bioremediation. Active Concepts utilizes fermentation processes to optimize beneficial properties of microorganisms for value added actives.

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
<th>INCI Name</th>
<th>Mechanism</th>
<th>Multifunctional Benefits</th>
</tr>
</thead>
</table>
| 16564 - AC Phytocoll PF                  | Yeast Extract              | Yeast cells provide a natural, vegan alternative to animal derived collagen while offering moisturization benefits | • Moisturizing  
• Antioxidant Protection  
• Promotes Collagen Synthesis                                           |
| 10950 - AC Saccharomyces Ferment         | Saccharomyces Ferment      | Metabolites released by yeast ferment convert odor compounds into larger, heavier compounds to promote a less perceivable odor | • Nourishing  
• Rejuvenating  
• Conditioning                                                              |
| 16618 - Probacillus Revive               | Lactobacillus Ferment Lysate | Growth media of *Lactobacillus bulgaricus* supplemented with prebiotics encourage bacteria to produce active components that offer benefits such as cell renewal | • Cellular Renewal  
• Anti-Inflammatory  
• Moisturizing                                                        |
| 20219PF - AC Dermal Respiratory Factor Advanced PF | Water & Saccharomyces Lysate Extract | Increases cellular oxygenation, wound healing, and reduces inflammation while promoting collagen and elastin synthesis | • Wound Healing  
• Reduction of Sunburn Pain  
• Stimulates Collagen Production                                          |
| 20227 - ACB Yogurt DRF® Powder           | Lactobacillus Bulgaricus Lysate Extract | Isolates of live bacteria cells are known to increase cellular respiration, cellular metabolism, and collagen production | • Reduces Redness  
• Antioxidant Protection  
• Increases Oxygen Uptake                                                   |
| 16912 - VegeaSilk                       | Yeast Amino Acids          | A biomimetic and vegan alternative to hydrolyzed silk proteins offering nourishing and film-forming benefits in hair and skin care applications | • Conditioning  
• Rejuvenating  
• Film-Forming                                                            |
| M14005 - ProBiocin V™                   | Lactobacillus Ferment Lysate | Vegan, COSMOS compliant, antimicrobial solution for personal care based on peptide technology to promote a healthy and balanced skin and scalp | • Moisturizing  
• Natural Antimicrobial  
• Redness Reduction                                                        |
| M15019MAX - Leucidal® SF Max            | Lactobacillus Ferment      | A powerful probiotic-based ingredient based on the fermentation of *Lactobacillus* and production of antimicrobial peptides | • Moisturizing  
• Natural Antimicrobial  
• Promotes Microbiome Balance                                               |
Reanimated Waste - Food & Agriculture

Industrial byproducts achieve new life in the beauty industry as components traditionally considered unwanted give rise to innovation. Sustainable sourcing and upcycling beauty products are on the rise. Many upcycled or recycled ingredients stem from food industry or agricultural waste including seeds, leaves, even roots and fruit flesh. Globally, consumers focus to reduce consumption while brands are obligated to help reduce their impact on the planet.

A cellular plant essence sustainably sourced from *Betula alba* leaves is designed to encourage an isotonic environment for the skin. Many industrial applications of birch trees utilize the tree’s lightweight, flexible, and waterproof nature. The birch leaves are typically wasted particularly when industries harvest the tree wood. Optimizing a novel approach to sustainability, the manufacturing of **BiEau® Actif Birch** utilizes birch tree leaves, typically considered agricultural waste.

*Salix nigra* and *Salix alba* are two of the largest and one of the most commercially important willow trees. The willow harvest takes place in the winter season to ensure that growth may resume in the spring. Our willow biomass is sourced from willow stems, which have been chipped on site of our suppliers. The chipping of this material translates into more efficient handling and transportation of the willow biomass. The equipment used to harvest the willow bark cuts the stems approximately 3-6 inches above the grounds, chipping them after the cut. Once this willow bark is used for products in other industries, specifically, the lumber, fuel, and packing industries, Active Concepts LLC sources the unused, residual biomass of these industries. This provides Active Concepts with a sustainable, environmentally conscious source of Willow Bark.

Pumpkin flesh is a byproduct of pumpkin seed harvesting. Pumpkin waste can be sold into the food industry or landfilled after meeting the demand from the food industry. One of the main concerns with pumpkins that end up in landfills are the emission of methane when the pumpkins decompose. Methane is a greenhouse gas with more than 20 times the warming effect of carbon dioxide. Minimizing the amount of pumpkin waste in landfills is an environmentally responsible approach to developing pumpkin derived materials including **ACB Modified Pumpkin Enzyme PF**.

**Raspberry** seed pomace is often an unwanted by-product of jellies, juice, wine and vinegar production. The leftover seeds and pulp are known to offer nutritional benefits as well as bioactive compounds similar to the composition of whole raspberries. Utilizing unused materials from other industries reduces waste as many fruits and vegetables can generate 25-30% waste materials.

In addition to Acai trees being a renewable resource, the main industrial waste product at the Acai manufacturing facilities are the Acai seeds. The Acai fruit itself is primarily seed; the outer skin is used to make a pulp, which is the basis of all Acai products, and the seeds are usually discarded as they cannot be used for consumption. The average daily output of seeds during the harvest period can reach up to 90 metric tons per day. Acai seeds are a renewable caloric source of green biomass energy that can be used by various industries to substitute other non-renewable fuels such as wood and propane gas or to create other products such as oils. These Acai seeds, which can be typically wasted, are utilized to obtain raw ingredients for material manufacturing such as the creation of **ABS Acai Sterols EFA**.
Waste occurs through all facets of the supply chain, from farms to processing, manufacturing to packaging. Even landfills house materials that become detrimental to the environment overtime. Discarded parts of food and agricultural can still provide nutrients, vitamins, minerals, and antioxidants capable of feeding the skin. Upcycling is a thrifty movement, full of promise to reanimate waste into new beauty treasure.

## Reanimated Waste - Food & Agriculture

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
<th>INCI Name</th>
<th>Mechanism</th>
<th>Multifunctional Benefits</th>
</tr>
</thead>
</table>
| 16907 - BiEau® Actif Birch | Betula Alba Juice | Cellular plant essence offering an isotonic environment for the skin while optimizing the presence of succinic acid for antioxidant benefits | • Rejuvenating  
• Antioxidant Protection  
• Standardized for the Presence of Succinic Acid |
| 10200 - ABS Willow Bark Extract | Salix Nigra (Willow) Bark Extract | Standardized for natural salicylates to provide formulators with an alternative to synthetic salicylic acid products without the associated inflammation | • Anti-Inflammatory  
• Antioxidant  
• Increase Skin Density |
| 10229 - ABS White Willow Bark Extract Powder | Salix Alba (Willow) Bark Extract | Antimicrobial power of natural salicylates reduce erythema and inflammation to promote clear, smooth skin | • Natural Alternative to Salicylic Acid  
• Reduces Redness and Irritation  
• Excellent Antioxidant Protection |
| 10230 - ABS White Willow Bark Extract | Salix Alba (Willow) Bark Extract | Antimicrobial power of natural salicylates reduce erythema and inflammation to promote clear, smooth skin | • Cellular Renewal  
• Natural Alternative to Salicylic Acid  
• Reduces Redness and Irritation |
| 20496 - ACB Modified Pumpkin Enzyme PF | Lactobacillus/Pumpkin Fruit Ferment Filtrate | Sustainable pumpkin flesh fermented with *Lactobacillus* promotes the use of proteolytic enzymes to impart cellular renewal benefits | • Cellular Renewal  
• Collagen Synthesis  
• Improves Overall Hair Feel |
| 20219PF - AC Raspberry Oil | Rubus Idaeus (Raspberry) Seed Oil | Capitalizing on the benefits of raspberry oil to provide rejuvenating benefits in hair and skin care applications | • Nourishing  
• Revitalizing  
• Conditioning |
| 15023 - AC Acai Oil | Euterpe Oleracea Oil | Offers the opportunity to capitalize on the natural properties of acai oil while providing revitalizing benefits in personal care formulations | • Anti-frizz  
• Conditioning  
• Antioxidant |
| 10414 - ABS Acai Sterols EFA | Euterpe Oleracea Sterols & Linoleic Acid & Oleic Acid & Linolenic Acid | Derived from the lipid fraction of the acai fruit, this ingredient can serve as a natural replacement for petrolatum and lanolin | • Improves Barrier Function  
• Moisturizing  
• Standardized for Essential Fatty Acids |
Various industries utilize **bamboo** for erosion control, building materials, fabrics and clothing, as well as beauty applications. Bamboo is the fastest growing wood resource and is a vital material in agriculture and forestry. The global demand for bamboo consistently increases, but the plant’s self-regenerating ability offers a sustainable supply. Bamboo culms, or the jointed stems, are harvested when the plant reaches maturity. A new shoot will then grow or regenerate from the bamboo’s root system, allowing a continuous re-harvest of the bamboo without damaging the surrounding environment or the overall plant system.

Perennial crops include botanicals, which are alive year round and offer multiple harvests during their lifetime. **Perennial** examples include various herbs, fruits, vegetables, tree nuts, trees, and flowers. Regenerative agriculture is a growing movement utilizing perennial crops to protect soil from erosion, improve soil integrity, and maintain a sustainable supply of product. This system of farming practices promotes higher health and vitality for communities while increasing biodiversity.

**Acai** are one of the few palm trees that are a renewable resource; it has multi-stems coming from the same root system called clumps. Although stems of the palm are fallen to harvest the palm hearts, the entire palm is not killed as a new stem is generated from the clump. This biological characteristic makes the acai palm an undeniably ideal species for the sustainable harvest of its fruits. The acai palm plays an important role for riverside communities in terms of their subsistence, due to its multiplicity of uses such as food, construction materials, animal feed and plant fertilizer.

**Acai** - Our supplier manufactures organic food, beverage and supplement products with acai - a delicious and powerfully nutritious purple berry that grows abundantly on palm trees throughout Brazil’s Amazon River Estuary. Since the company’s formation in 2000, our supplier’s mission has been to promote the sustainable management of the Brazilian Amazon by marketing the highest quality acai products to consumers worldwide. Guided by the business principles of the ‘triple bottom line’ (social, environmental and economic success), our supplier pioneered a market-driven conservation business model around marketing acai to the worldwide marketplace. This model has created positive change in the Amazon Rainforest and beyond by protecting biodiversity, sustainably managing thousands of acres of forest, creating employment opportunities and increasing the socio-economic status of thousands of small family farmers. Additionally, our supplier has created a new global market for the Amazon berry. Acai powerful nutritional benefits have helped enhance the quality of life among millions of people who now enjoy it on every continent.
# Regenerative Botanicals

As sustainability concerns grow, brands are tasked with bridging the space between sustainable farmers and the eco-conscious consumer. Botanicals that regenerate after a proper harvest offer a novel approach for renewable responsibility. Bamboo, acai, apples, figs, and dates are a few samples of regenerative botanicals promoting natural, eco-friendly beauty.

<table>
<thead>
<tr>
<th>Product Code &amp; Name</th>
<th>INCI Name</th>
<th>Mechanism</th>
<th>Multifunctional Benefits</th>
</tr>
</thead>
</table>
| 20433PF - ACB Bamboo Isoflavones PF | Lactobacillus/Arundinaria gigantea Leaf Ferment Filtrate | Bio-silicate, from fermented bamboo stalks and leaves offers increased epidermal slip and antioxidant benefits | • Increase Epidermal Slip  
• Antioxidant Protection  
• Natural Silicone Alternative |
| 20831 - ProCutíGen® Hold | Phyllostachys Bambusoides Extract | Bivalent cationic lipopeptide that self-assembles into a neo-cuticle on the hair to retain style while offering protection from harsh styling treatments promoting healthy hair | • Hair Style Retention  
• Protects and Strengthens Hair  
• ProBonding |
| 15068 - ABS Bamboo Water | Phyllostachys Bambusoides Juice | Capitalizes on the benefits of bamboo water to provide rejuvenating benefits in personal care applications. | • Rejuvenating  
• Nourishing  
• Conditioning |
| 20225PF - ACB Bamboo Bioferment PF | Lactobacillus/Arundinaria Gigantea Ferment Filtrate | Capitalizing on the properties of fermented bamboo to provide revitalizing benefits in hair and skin care formulations | • Nourishing  
• Revitalizing  
• Great for Hair and Skin |
| 10825 - ABS Apple Extract G | Glycerin & Pyrus Malus (Apple) Fruit Extract | Capitalizes on the benefits of apples to provide nourishing properties in personal care applications. | • Nourishing  
• Conditioning  
• Rejuvenating |
| 16667 - ABS Fig Extract PF | Water & Ficus Carica (Fig) Fruit Extract | Offers the opportunity to capitalize on the benefits of fig to promote a rejuvenated complexion in hair and skin care | • Rejuvenating  
• Great for Hair and Skin Care  
• Conditioning |
| 10206 - ABS Date Seed Powder | Phoenix Dactylifera (Date) Seed | Capitalize on the known properties of date seeds in a variety of cosmetic and personal care formulations | • Conditioning  
• Great for Hair and Skin Care  
• Nourishing |
| 10414 - ABS Acai Sterols EFA | Euterpe Oleracea Sterols & Linoleic Acid & Oleic Acid & Linolenic Acid | Derived from the lipid fraction of the acai fruit, this ingredient can serve as a natural replacement for petrolatum and lanolin | • Improves Barrier Function  
• Moisturizing  
• Standardized for Essential Fatty Acids |